

Enterprise Foundry, Inc.)	Departmental
Androscoggin County)	Findings of Fact and Order
Lewiston, Maine)	Air Emission License
A-108-71-E-R)	

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Enterprise Foundry, Inc. (EFI) of Lewiston, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their gray and ductile iron casting facility.

B. Emission Equipment

EFI is authorized to operate the following equipment:

Process Equipment

<u>Equipment</u>	<u>Production Rate</u>	<u>Pollution Control Equipment</u>
Electric Coreless Melting Furnace #1-3303	1 ton/hr	baghouse #1
Electric Coreless Melting Furnace #2-3303	1 ton/hr	baghouse #1
Electric Coreless Melting Furnace #3-3303	1 ton/hr	baghouse #1

<u>Equipment</u>	<u>Pollution Control Equipment</u>
Sand Preparation	baghouses # 4, 5, 7, 8
Shot Blasting	baghouses # 6, 9
Pattern Shop	baghouse #13
IMF Mixer	baghouses # 10, 14
Grinding Operations	baghouse # 2

EFI has five small oil fired boilers, and four gas fired boilers, all of which are under 1 MMBtu/hr. These boilers are documented for inventory purposes only.

C. Application Classification

The application for EFI does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

Process Description

EFI produces gray iron castings from scrap iron and foundry returns by melting, alloying and molding. The major production steps are raw materials handling and preparation, metal melting, mold core production, casting and finishing.

The electric induction furnaces are refractory lined vessels that are surrounded by electrical coils which, when energized with high frequency alternating current, produce a fluctuating electromagnetic field to heat the metal charge to 2900°F. The molten metal is transferred to molds where it solidifies to a specified form.

Castings attain their shape by the use of molds and cores. While molds are used to shape the exterior of the casting, the cores are used like molds to shape the internal voids in the castings.

Molds are prepared from a mixture of wet sand, clay and organic additives to make the mold shapes. The sand used to make the molds consists of virgin sand and sand recovered from pre-used molds. The recovered sand is broken down to a specified consistency and mixed with the virgin sand.

Cores are made by mixing sand with organic binders, molding the sand into a core, and baking the core in an oven.

After the castings have cured and been removed from the molds they are shot blasted to remove excess sand left from the molds. The castings are then ground to an acceptable form before they are shipped off-site.

B. Electric Induction Furnaces

A maximum of only two electric induction furnaces can be operated at one time because of the electrical power supply. The use of two furnaces at a time and the use of a baghouse to control particulate emissions is considered BPT for this source.

BPT includes limiting particulate emissions from the furnace baghouse to 0.2 lb/ton gray iron produced. Visible emissions from the electric induction furnace baghouse shall be limited to 5% opacity on a six-minute block average basis.

C. Sand Recycling Operation

BPT for the sand mixing operation shall include the use of a baghouse. The emissions from each baghouse shall be limited to 5% opacity on a six-minute block average basis.

D. Shot Blasting and Grinding Operations

BPT for the shot blasting and grinding operations shall include the use of baghouses. The emissions from the baghouse shall not exceed an opacity of 5% on a six-minute block average basis.

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis.

EFI is not required to perform modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,

-will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-108-71-E-R subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

- (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

- (16) A maximum of two electrical coreless induction furnaces may be operated at one time.
- (17) Emissions from the induction furnaces shall be vented through a baghouse, which shall be maintained in accordance with the manufacturers specifications for optimal removal efficiency.
- (18) PM emissions from the induction furnace baghouse vent shall not exceed 0.2 lb/ton of gray iron produced.
- (19) The emissions from the baghouse which controls the induction furnaces shall not exceed an opacity of 5% on a six-minute block average basis.
- (20) Visible emissions from the baghouses which control the sand recycling, shot blasting, and grinding operations shall not exceed an opacity of 5% on a six-minute block average basis.

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(21) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 1999.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: June 28, 1999

Date of application acceptance: July 13, 1999

Date filed with the Board of Environmental Protection: _____

This Order prepared by Elisha McVay, Bureau of Air Quality.